

WE CLAIM:

1. An edible, chewable, soft gelatin capsule, comprising a capsule shell formed from a capsule film, the capsule film having a wet mass comprising:
 - gelatin in about 29 weight %;
 - hydroxypropylated starch in about 11 weight %;
 - glycerol in about 33 weight /w %; and
 - water in about 27 weight %.
2. A finished gelatin capsule ready for packaging, comprising a capsule shell formed from a capsule film; wherein the finished capsule shell has an end composition comprising:
 - at least one gelatin in about 20 to 55 weight % gelatin;
 - plasticizer in about 19-40 weight %; and
 - at least one modified starch in about 5-35 weight %.
3. The capsule of claim 1, wherein the plasticizer further comprises at least glycerin.
4. The capsule of claim 1, wherein the plasticizer further comprises at least sorbitol.

5. The capsule of claim 2, wherein the plasticizer is selected from the group consisting of polyethylene glycol, sucrose, mannitol, corn syrup, fructose, cellulose, dioctyl-sodium sulfosuccinate, triethyl citrate, tributyl citrate, 1,2-propylenglycol, mono-, di- or triacetates of glycerol, and natural gum.
6. The capsule of claim 2, in which the at least one gelatin comprises about 25-40 weight % of the capsule.
7. The capsule of claim 2, in which the at least one modified starch comprises 7-30 weight % of the capsule.
8. The capsule of claim 2, wherein the at least one gelatin is a gelatin of about 275 bloom.
9. The capsule of claim 2, wherein the at least one gelatin is a bovine gelatin.
10. The capsule of claim 2, wherein the at least one gelatin is a combination of fish and bovine gelatins.
11. The capsule of claim 2, wherein the at least one gelatin is a combination of a plurality of fish gelatins.

12. The capsule of claim 10, having about 5-95 weight % fish gelatin and about 5-95 weight % bovine gelatin.
13. The capsule of claim 10, wherein the combination of gelatins further comprises about 25-35 weight % fish gelatin and about 65-75 weight % bovine gelatin.
14. The capsule of claim 10, having about 28 weight % fish gelatin and about 72 weight % bovine gelatin.
15. The capsule of claim 2 wherein the capsule is formed from a capsule film having a thickness not exceeding .030 inches
16. The capsule of claim 2 wherein the capsule is formed from a capsule film having a thickness less than about .025 inches.
17. The capsule film of claim 2 wherein the capsule is formed from a capsule film having a thickness less than about .020 inches.
18. The capsule film of claim 2 wherein the capsule is formed from a capsule film having a thickness less than about .015 inches.

19. A process for making an edible compound for forming capsules

comprising the steps of:

- a. selecting a base gelatin for the edible compound;
- b. placing the base gelatin in a temperature controlled mixing unit;
- c. adding a predetermined amount of purified water to the mixing unit to create a gel mass;
- d. maintaining the gel mass at a temperature no greater than 65° C;
- e. mixing predetermined amounts of at least one predetermined starch and a predetermined amount of at least one plasticizer in a separate vessel to create a slurry;
- f. transferring the slurry to the gel mass to create an encapsulation formulation;
- g. maintaining the formulation at temperature less than about 65°C;
- h. applying vacuum to de-aerate the formulation;
- i. transferring the formulation to a temperature controlled vessel and maintaining the temperature thereof at less than about 65°C; and
- j. transferring the formulation to a rotary die encapsulation machine for processing.

20. A rotary die gelatin encapsulation process comprising the steps of:

- a. casting at a first predetermined speed a continuous first gelatin ribbon having a first predetermined thickness on a first casting drum having a first predetermined temperature cooled to less than ambient temperature;
- b. casting at a second predetermined speed a continuous second gelatin ribbon having a second predetermined thickness on a second casting drum having a second predetermined temperature cooled to less than ambient temperature;
- c. uniting the first gelatin ribbon and the second gelatin ribbon to form gel pockets and injecting fill material into the gel pockets to produce freshly formed gelatin capsules; and
- d. processing the freshly formed capsules to reduce surface tackiness.

21. The process of claim 20, wherein the predetermined first and second casting speed is equal to or between 2.0 and 2.5 RPM.

22. The process of claim 20, wherein the predetermined first and second casting speed is equal to or between 2.5 and 3.0 RPM.

23. The process of claim 20, wherein the predetermined first and second casting speed is equal to or between 3.0 and 3.3 RPM.

24. The process of claim 20, wherein the predetermined first and second casting speed is equal to or between 3.3 and 3.5 RPM.
25. The process of claim 20, wherein the predetermined first and second casting speed is equal to or between 3.5 and 4.5 RPM.
26. The process of claim 20, wherein the first and second predetermined thickness is less than approximately .030 inches.
27. The process of claim 20, wherein the first and second predetermined thickness is less than approximately .025 inches.
28. The process of claim 20, wherein the first and second predetermined thickness is less than approximately .020 inches.
29. The process of claim 20, wherein the first and second predetermined thickness is less than approximately .015 inches.
30. The process of claim 20, wherein the first and second predetermined temperature is less than about 12°C.

31. The process of claim 20, wherein the first and second predetermined temperature is between 8°C and 10°C.
32. The process of claim 20, wherein the cooling of the casting drums to a first and second predetermined temperature less than ambient temperature is achieved by water cooling of the drums.
33. The process of claim 20, wherein the cooling of the casting drums to a first and second predetermined temperature less than ambient temperature is achieved by air cooling of the drums.
34. The process of claim 20, wherein the step of processing the freshly formed capsules further comprises a step of drying the capsules.
35. The process of claim 20, wherein the step of processing the freshly formed capsules further comprises a step of applying a surface treatment to the capsules.
36. The process of claim 35, wherein the surface treatment further comprises at least one agent selected to enhance, complement or ameliorate some aspect of the filling of the capsule.

37. The process of claim 35, wherein the surface treatment further comprises at least one flavoring agent.
38. The process of claim 37, wherein the flavoring agent is selected to have a minimal impact on cross-linking of the gelatin in the capsule.
39. The process of claim 35, wherein the surface treatment is a dusting agent.
40. The process of claim 39, wherein the dusting agent is at least one starch.
41. The process of claim 40, wherein the at least one starch further comprises tapioca starch.